

**CCSU**  
**DEPARTMENT OF MATHEMATICAL SCIENCES**

# COLLOQUIUM

Friday, February 10  
3:00 – 4:00 PM  
Maria Sanford, Room 101

## **CYCLIC BEHAVIOR OF COUNTING SEQUENCES**

**MATTHEW DONNELLY**

(MA in Mathematics Thesis Presentation)

**CENTRAL CONNECTICUT STATE UNIVERSITY**

**Abstract:** The audioactive sequence was first explained by John Conway in 1987 as part of his Cosmological Theorem, which explored the evolution of exotic elements soon after the Big Bang. This talk reviews Conway's derivation and use of the audioactive sequence and then explores a modified version put forth by Victor Bronstein and Aviezri Fraenkel, who were able to identify many new properties. Finally, we will discuss some new additions to the inquiry as well as some open questions. Although the mathematics used in the actual derivations and proofs is sometimes advanced, the presentation itself generally does not require anything beyond arithmetic.

***For further information:***

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